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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/547,680

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Heinrich Hanisch

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EXAMINER

BASHAW, HEIDI M

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/547,680	Applicant(s) HANISCH ET AL.	
	Examiner HEIDI M. BASHAW	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-28 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/02/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the mesial/lingual, mesial/buccal, distal/lingual and distal/buccal corners must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the

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description: 82. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a)(2) is granted. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.
3. In claim 1, it is unclear how when defining the preparation border, it includes the preparation border.
4. Claim 17 recites the limitation "the regional boundary" in line 3, "the occlusal surface" in line 11 and "the marginal crest" in line 14. There is insufficient antecedent basis for these limitations in the claim.
5. Claim 18 recites the limitation "the labiolingual line" in 3 and "the cutting edge" in line 4. There is insufficient antecedent basis for these limitations in the claim.
6. Claim 19 recites the limitation "the mesial/lingual, mesial/buccal, distal/lingual and distal/buccal corners" in lines 3-4. There is insufficient antecedent basis for these limitations in the claim.
7. Claim 21 recites the limitation "the regional boundary" in line 3 and "said equator" in line 10. There is insufficient antecedent basis for this limitation in the claim.
8. Claim 26 recites the limitation "the point" in line 4. There is insufficient antecedent basis for this limitation in the claim.
9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 17-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Baba 6,049,743.

11. Re claim 17, Baba teaches a device for the selection of a region for a dental restoration body depicted in 3D representation, in which at least parts of the regional boundary are in the form of dentally specific lines wherein the region is selected by selecting, in the 3D representation displayed, dentally specific lines or a preparation border and the selected line selects the region completely according to the following assignments: preparation border ML; the region extends from the preparation border to the center of the occlusal surface, equator 15; the region lies between the preparation border and the marginal crest, marginal crest 14; the region extends from the equator to the center of the occlusal surface, fissure; the entire occlusal surface is selected as the region, this being delimited by the marginal crest as illustrated in figs. 4A-4B (col. 8, ll. 3-11).

12. Re claim 18, Baba teaches the device wherein the dentally specific lines used are equator 15, the marginal crest 14 and the dentally specific points used are the position of one or more cusp peaks 11 as illustrated in figs. 4A-4B (col. 7, ll. 65-67, col. 8, ll. 1-3).

13. Re claim 19, Baba teaches the device wherein each of the dentally specific lines are divided into four parts representing the mesial/lingual, mesial/buccal, distal/lingual and distal/buccal corners of the tooth respectively as illustrated in fig. 4B.

14. Re claim 20, Baba teaches the device wherein the selected part of the line selects that half of the tooth in which the region lies (col. 8, ll. 7-22).

15. Re claim 21, Baba teaches the device for the selection of a region of a dental restoration body depicted in 3D representation in which at least parts of the regional boundary are in the form of dentally specific lines wherein the region is selected by selecting in the 3D representation displayed, dentally specific points 11 and the selection of a dentally specific point representing the position of a cusp peak makes it possible to select the region of the corresponding cusp up to its border and the lower limit of the region is formed by the equator 15 as illustrated in figs. 4A-4B (col. 8, ll. 7-22).

16. Re claim 22, Baba teaches the device wherein instead of selecting the displayed lines or points, a region of the displayed surface is selected which is unambiguously assigned to the region to be selected, however a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

17. Re claim 23, Baba teaches the device wherein the selected region is shown in a distinguishable fashion as illustrated in fig. 5 (col. 8, ll. 7-22).

18. Re claim 24, Baba teaches the device wherein comparative means are provided for geometrical data of the selected region (col. 7, ll. 14-17).

19. Re claim 25, Baba teaches the device wherein the selected region can be processed with the aid of a design tool of a CAD system (col. 7, ll. 24-26).

20. Re claim 26, Baba does not specifically teach the device wherein the tool for modifying a region leaves the regional boundaries unchanged and a continuous increase in modification taking place up to the point requiring the greatest degree of modification, however, it would have been obvious to one having ordinary skill in the art at the time of the invention that the modifications made are user dependent and a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

21. Re claim 27, Baba does not specifically teach the device wherein the point of greatest modification lies of a dentally specific line or on a dentally specific point, however, it would have been obvious to one having ordinary skill in the art at the time of the invention that the modifications made are user dependent and a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

22. Re claim 28, Baba teaches a method of selecting a region of a dental restoration body depicted as a 3D representation in which to the selected region, regional boundaries are assigned which are at least in part in the form of dentally specific lines

wherein the selection of the region is effected by selecting a dentally specific line 14/15 or a dentally specific point 11 or a preparation border ML associated with the region to be selected as illustrated in fig. 4A-4B (col. 8, ll. 7-22).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. BASHAW whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Bashaw
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
Art Unit 3732

HMB